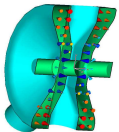


Introduction

Frank Krawczyk
LANL

Workshop on the Advanced Design of Spoke Resonators

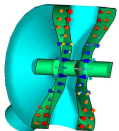
Los Alamos, NM, USA
October 7 and 8, 2002



Purpose

In the last few years spoke resonators became serious candidates as accelerating structures for low velocity proton and ion beams. Starting from the early work by Jean Delayen and Ken Shepard and their colleagues various designs at different frequencies and betas have been demonstrated in low power tests. With the consideration of these resonators in recent linac designs (ATW, ESS, EURISOL, RIA, XADS) the next steps have to be taken to demonstrate their usefulness on real accelerators.

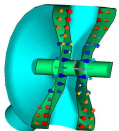
We organized this workshop to exchange and develop ideas that help demonstrating the value of these resonators in more realistic environments.



Workshop Scope

What could we get out of this workshop?

- Better (more efficient) ways to design spoke resonators
- Understanding, when “simple” is enough (vs. “optimal”)
- Lessons learned
- Things to avoid
- Observations we need to understand
- Integration of cavities and couplers
- Integration with ancillary components (tuners, stiffening, ...)
- Useful future experiments/designs
- Explain to Paolo that he needs to go to Zanon this year



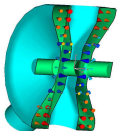
Workshop Format

The workshop is structured in

- Overview talk
- Status of projects
- Technical design details of:
 - Spoke resonators
 - Ancillary components
 - Cryo-systems
- Test results

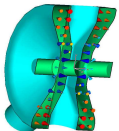
Each presentation allows for 5 to 10 minutes of discussion. And there are several dedicated discussion sessions. The presentations should help initiate fruitful discussion.

While there will be no proceedings, we are planning to publish a CD-ROM with all the presentations. We will also publish a summary of the discussion sessions.



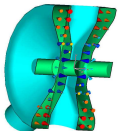
Miscellaneous

- Emergency Exits
- Acknowledgements:
 - Angelina Gurule-Sanchez, Lynnette Trujillo, Dale Schrage, Tsuyoshi Tajima
 - Ken Shepard, Jean Delayen and Brian Rusnak
 - All speakers chair-people and participants
- Dinner at “Rancho de Chimayo” at 7:00 PM (see map in the abstract booklet)



Workshop Program

				1st DAY - AM		
Time	Talk	Disc.	Topic		Speaker	Chair
8:30	0:05	0:00	Welcome		M. Cappiello	
8:35	0:10	0:00	Introduction		F. Krawczyk	
8:45	0:20	0:05	Overview	Medium- β SC Structures	J. Delayen	F. Krawczyk
9:10	0:10	0:05	Status of Projects	ANL:RIA	K. Shepard	F. Krawczyk
9:25	0:10	0:05		CNRS:XADS/Eurisol	T. Junquera	
9:40	0:10	0:05		FZJ:ESS	E. Zaplatin	
9:55	0:10	0:05		LANL:AAA	D. Schrage	
10:10	0:10	0:05		INFN-Milano:TRASCO	P. Pierini	
10:25	0:00	0:15	Break			
10:40	0:10	0:05	Specific Designs	ANL:RIA	K. Shepard	J. Delayen
10:55	0:10	0:05		CNRS:XADS/Eurisol	G. Olry	
11:10	0:10	0:05		FZJ:ESS	E. Zaplatin	
11:25	0:10	0:05		LANL:AAA	F. Krawczyk	
11:40	0:10	0:05		INFN-Legnaro:Ladder/Cross	G. Bisoffi	
11:55	0:00	0:20	Discussion	RF Design Procedure	All	J. Delayen / K. Shepard
12:15	0:00	1:05	Lunch Break			



Workshop Program

				1st DAY - PM		
Time	Talk	Disc.	Topic		Speaker	Chair
12:15	0:00	1:05	Lunch Break			
13:20	0:10	0:05	Mechanical Design	ANL:RIA	T. Schultheiss	J. Rathke
13:35	0:10	0:05		CNRS:XADS/Eurisol	G. Olry	
13:50	0:10	0:05		LANL:AAA	D. Schrage	
14:05	0:10	0:05	Tuner Design	ANL:RIA	B. Rusnak	M. Kelly
14:20	0:10	0:05		LANL:AAA	D. Schrage	
14:35	0:10	0:05	Fabrication	ANL:RIA	K. Shepard	J. Rathke
14:50	0:10	0:05		CNRS:XADS/Eurisol	J. Lesrel	
15:05	0:10	0:05		LANL:AAA	D. Schrage	
15:20	0:00	0:15	Break			
15:35	0:00	0:30	Discussion	Mechanical, Tuner & Fab	All	J. Delayen / K. Shepard
16:05	0:10	0:05	Test Results	LANL:AAA	T. Tajima	K. Shepard / J. Delayen
16:20	0:10	0:05		ANL:RIA	M. Kelly	
16:35	0:10	0:05	Cavity Processing	ANL:RIA	M. Kelly	
16:50	0:10	0:05		CNRS:XADS/Eurisol	S. Bousson	
17:05	0:10	0:05		LANL:AAA	T. Tajima	
17:20	0:00	0:30	Discussion	Processing&Testing	All	J. Delayen / K. Shepard
17:50			End of First Day			
19:00			Rancho de Chimayo			

